

5th FIG Regional Conference - Promoting Land Administration and Good Governance, Accra, Ghana, March 8-11, 2006.

## Ghana's Land Administration Project (LAP) and Land Information Systems (LIS) Implementation: The Issues

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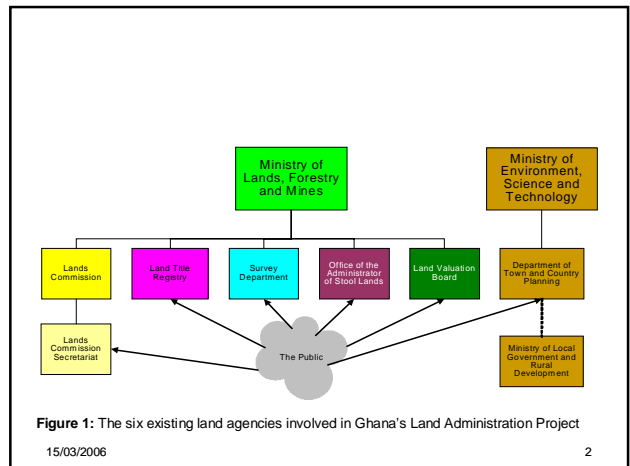
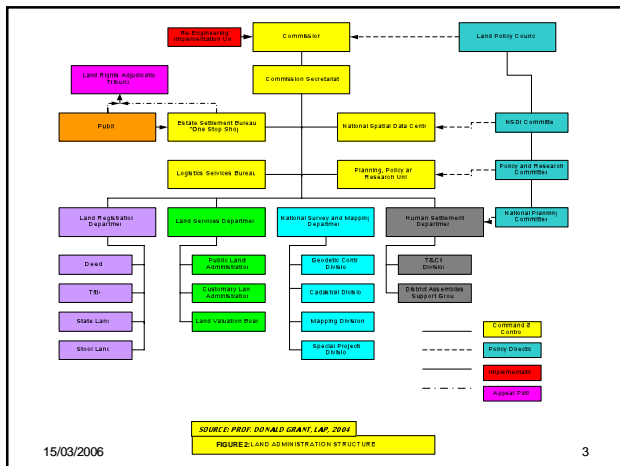


Figure 1: The six existing land agencies involved in Ghana's Land Administration Project

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SOURCE: PROF. DONALD GRANT, LAP, 2004

FIGURE 2: LAND ADMINISTRATION STRUCTURE

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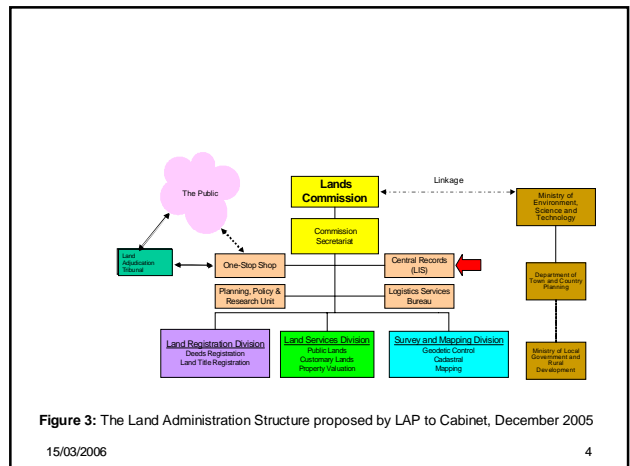


Figure 3: The Land Administration Structure proposed by LAP to Cabinet, December 2005

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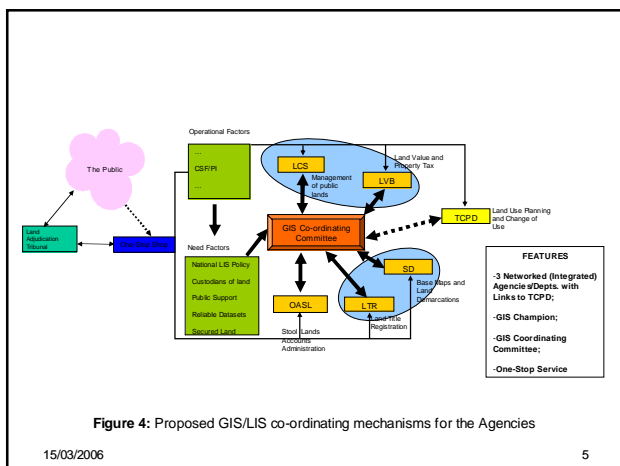
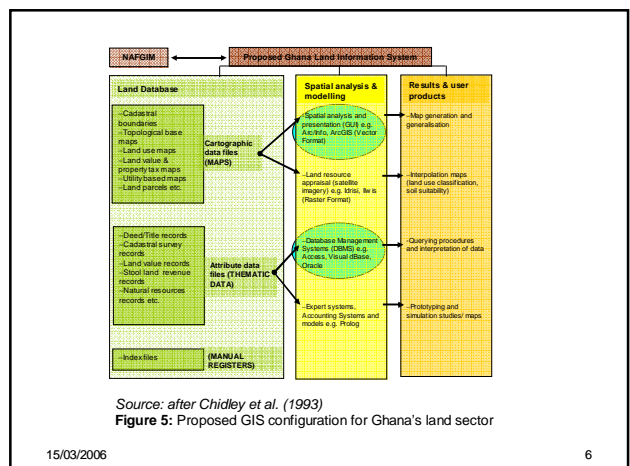


Figure 4: Proposed GIS/LIS co-ordinating mechanisms for the Agencies

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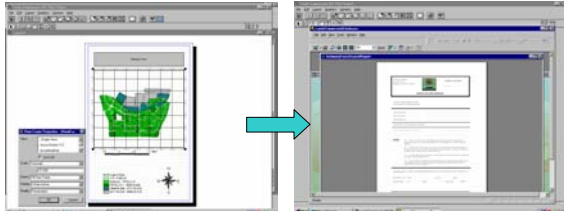
Source: after Chidley et al. (1993)

Figure 5: Proposed GIS configuration for Ghana's land sector

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## Some Simple User Interfaces



Map Composition in ArcView: GUI

Search Report in Microsoft Access: DBMS

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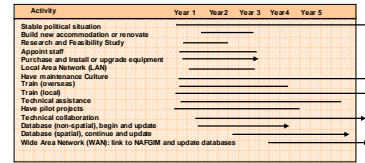


Table 1: Example of some national GIS strategic choices using a bar chart

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Activities	Acceptable Conditions/Requirements
Stable political situation:	stable democratic institutions and support
Build new accommodation or renovate:	create optimal working environment
Research and feasibility study:	use indigenous expertise (strongly human-centred research activities); gaining institutional & financial support
Appoint staff:	GIS manager, analyst, systems administrator, programmer, database administrator, cartographers, drafters, and digitizers
Purchase and install equipment:	functional equipment, ensure standardization for all sections
Local Area Network (LAN):	have efficient information system
Have maintenance culture:	maintenance schedule
Train (overseas):	study and research (R&D)
Train (in-country):	not having to rely on outside technical assistance when minor problems occur; appropriate mind set
Have pilot projects:	for immediate gratification and replication
Technical assistance:	capacity donor support, training and using indigenous expertise
Technical collaboration:	long term interaction with other African GIS laboratories
Database (non-spatial):	begin with 'keying in' attribute data in a DBMS; data must be accurate and up-to-date
Database (spatial):	digital base maps that can be used by other land agencies that have GIS
Wide Area Network (WAN): NAFGIM:	share data through a good networking mechanism via NAFGIM

Table 2: Conditions and requirements associated with GIS strategic choices

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## Some Necessary Steps

- Step one: agencies must have proper organisational structures;
- Step two: agencies must ensure that there are data standards for their operation;
- Step three: appropriate staff (with requisite training) must be available;
- Step four: agencies must have appropriate funding;
- Step five: agencies must create and have a maintenance culture; and
- Step six: agencies must ensure data sharing.

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## Some Recommendations to the Land Sector Agencies

- involve requisite staff from the outset;
- give a sustained effort at building the Agencies information systems and analytical capacity through human resource development and research;
- retrain professional staff to cope adequately with work processes through a focused and continuous training programme (including study tours/conferences) in IT, GIS and land related courses; and
- create sinking funds or revolving funds from the very outset to be replenished periodically, purely for maintenance of equipment and back-ups.

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## Some Recommendations to LAP

- LAP should restrict itself to facilitating and monitoring the project. (It should ensure project management/control, monitoring and evaluation only);
- components of LAP, with the exception of Component 4 (dealing with monitoring and evaluation and project management), must be headed by Agency Team Leaders based as much as possible on current mandates. Agency Team Leaders must be empowered;
- implementation must occur at 'Implementation Agency' level where all pilots, including GIS ones, must be done: There is the need, in this regard, to develop a deep sense of ownership by making use of the LAPs Regional Co-ordinators as far as practicable;
- LAP must resource and strengthen the Agencies and relevant stakeholders by providing sustained logistical support, material and human resources development. Procurement must be decentralised to these agencies as far as practicable); and
- Development Partners must help revitalise NAFGIM.

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## Conclusions

- The agencies must recognise that major problems to be overcome in improving land information practices will be organisational, managerial and human based.
- It is the way in which the responsibility for land data is to be allocated and distributed between institutions, how records are to be kept and administered and on the skill and education of the people who are expected to run these systems that would determine their success and failure, and not the GIS technology to be employed.

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## Thank You Very Much

- Any Contributions, Suggestions and/or Questions?

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